

Claims:

1. A pin driver usable with a frame tool for driving pins into a frame element, comprising:

a reciprocating driver blade moveable between a retracted position and an extended position;

5 a guide shoe associated with said driver blade for guiding the pin from a ready position to a driven position; and

a hammer arm assembly mounted in operational relationship to said guide shoe and configured to strike and bend the pin upon reaching the driven position.

2. The pin driver of claim 1 wherein said driver blade is configured to be associated with said hammer arm assembly such that the movement of said driver blade from said retracted position to said extended position causes said hammer arm assembly to pivotally move from a first position to a second position at which the pin is
5 bent.

3. The pin driver of claim 2 further including a shaft associated with said guide shoe.

4. The pin driver of claim 3 wherein said guide shoe further includes pivot eyelets configured to rotatably receive said shaft.

5. The pin driver of claim 3 wherein said shaft is configured for compelling a pivoting action of said hammer arm assembly upon impact by said driver blade.

6. The pin driver of claim 5 further including at least one blade striker arm coupled to said shaft.

7. The pin driver of claim 6 wherein said driver blade has at least one shoulder that is associated with a corresponding said at least one blade striker arm such that said shoulder abuts said blade striker arm when said driver blade moves from said retracted position to said extended position.

8. The pin driver of claim 2 further configured for exerting a biasing force on said hammer arm assembly to said first position.

9. The pin driver of claim 8 further including at least one spring for exerting said biasing force.

10. The pin driver of claim 9 wherein one end of said at least one spring is positioned on said blade striker arm and another end of said at least one spring is positioned on said guide shoe.

11. The pin driver of claim 1 further including a guide plate constructed and arranged such that by said hammer arm assembly strikes the pin upon reaching said driven position.

12. The pin driver of claim 11 further including at least one bumper pad configured for absorbing impact energy generated by said hammer arm assembly striking the pin.

13. The pin driver of claim 12 wherein said at least one bumper pad is located on said guide plate such that said bumper pad contacts said hammer arm assembly when said hammer arm assembly reaches said second position.

14. The pin driver of claim 12 wherein said bumper pad is located on said hammer arm assembly such that said bumper pad contacts said guide plate when said hammer arm assembly reaches said second position.

15. The pin driver of claim 11 wherein said guide plate is made of a steel alloy.

16. A frame tool with a pin driver for driving pins into a frame element, comprising:

a housing;

a reciprocating driver blade moveable relative to said housing between a retracted position and an extended position;

a hammer arm assembly mounted in operational relationship to said guide shoe and configured to strike and bend the pin upon reaching said driven position; and

said driver blade is configured to be pivotally associated with said hammer arm assembly such that the movement of said driver blade from said retracted position to said extended position causes said hammer arm assembly to move from a first position to a second position at which the pin is bent.

17. The pin driver of claim 16 further including a guide shoe attached to said housing and associated with said driver blade for guiding the pin from a ready position to a driven position.

18. The pin driver of claim 16 further including a cylinder configured to drive said driver blade from said retracted position to said extended position.

19. The pin driver of claim 18 further including a driver blade seal configured to prevent air from escaping from said housing past said cylinder.

20. The pin driver of claim 19 further including a seal spacer provided for supporting said driver blade seal.

21. The pin driver of claim 17 wherein said guide shoe defines a pin driving axis and is configured to position said pin driving axis at an angle less than 90 degrees from a surface of the element.

22. A pin driver usable with a frame tool for driving pins into a frame element, comprising:

a reciprocating driver blade moveable between a retracted position and an extended position;

5 a guide shoe associated with said driver blade for guiding the pin from a ready position to a driven position;

a hammer arm assembly mounted in operational relationship to said guide shoe and configured to strike and bend the pin upon reaching said driven position;

10 said driver blade is configured to be pivotally associated with said hammer arm assembly such that the movement of said driver blade from said retracted position to

said extended position causes said hammer arm assembly to move from a first position to a second position at which the pin is bent; and

said guide shoe is tapered towards a tip and said hammer arm assembly is configured to correspond to said taper.